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Wasted Effort in Forest-Reform.

IN a letter which will be found on another page of this issue, Mr. Binney states that much effort toward forest-reform has been wasted. By this he means that if the desultory, volunteer work of all persons who have attempted in their own individual way to put some check upon the useless destruction of forests had been organized and concentrated, much more would have been accomplished than has been gained up to the present time. It is true also that organization not only makes work effective, but what is of still greater importance, it offers opportunity for work to many willing persons who otherwise could find nothing to do. At the present time there are several bills before Congress, each of which is honestly intended to protect and preserve the forests on the public domain. Senator Sherman, for example, has offered one which calls for a commission, consisting of the Chief Engineer of the Army, the Chief Signal Officer, the Secretary of Agriculture and the Secretary of the Smithsonian Institute, to assume a certain control over the public forests, and Senator Hale has introduced another measure similar to the one advocated two years ago by the Forestry Congress. Mr. Dunnell has charge of a third, of which we have before spoken. There is little doubt that if the authors of all these bills and the forces which are behind them should unite upon some common policy, the chances of success would be much greater than are the chances for either measure now.

The efforts of the men who show an interest in the Adirondack forests are even more divided and scattering. The Forest Commission has certain bills of its own to pass. The Governor writes a special message recommending a State Park, which project is condemned by the committee to whom it is referred. The Speaker of the House presents another bill for an Adirondack Park, and certain physicians of this city have organized still another scheme for a sanitarium, which they propose to push forward without regard to any other interests. Unfortunately there is a suspicion that more than one of these schemes is only patriotic on its face, and the appearance of public spirit is only a disguise to conceal selfish purposes. It is rumored that behind one large park scheme stands a great iron-master, who has stripped the timber from thousands of acres, and now that the land is no longer useful for his purpose, he is eager to sell it to the state. Another Adirondack Park scheme is conceived, according to the statement of one of its projectors, primarily for the diversion of a few, and not for the health and happiness of the many. There can be no question that if there was an active association of all the men in the state who have an intelligent and unselfish interest in preserving what is left of the North Woods—an association with means to employ salaried agents to devote their time to these questions and give the proper direction to public opinion—the future of the Adirondacks would be more hopeful. As the case now is, reputable newspapers have been betrayed into advocating measures which mean ruin for the forest and robbery for the state. If sagacious men were paid to look after the interests of the forests, in Albany and elsewhere, just as other interests are cared for by trusts and business unions of one sort or another, persons who really desire to protect the forests could be warned, at least, against advocating measures which have been framed to defeat the very object which they pretend to promote.

Now, it is very true that we have no guarantee that forest associations will act wisely. They may fall under injudicious management; they may try to accomplish impossibilities or to secure even pernicious legislation. But, after all, they must be judged as other human agencies are judged, and if wise men are dissatisfied with their administration the true remedy is to secure a better executive force. Certain it is that the approved modern way of carrying on any reform is through men who are employed to devote themselves to the business systematically and exclusively; to use all legitimate means of instruction and influence through the press, and at the Capitol; to watch over the forests, if forest-reform is their object, with an interest as vigilant, at least, as that which is exercised by those who are organizing plans for their destruction. It is true that a half dozen wealthy men might unite to employ such agents; but the natural way, even for such men, is to work through larger associations, adding their liberal contributions to the mites of those who can afford to give no more.

The state organizations are doing much indispensable work, but we wish especially to state here our belief that the National Forestry Association is worthy of the confidence and support of those who are concerned about the forests of the country. It has a definite object in view, which is to secure the appointment of a properly equipped Commission to examine the government forests and report the best method to preserve and utilize them, insisting, meanwhile, that all forest-land shall be withdrawn from sale and entry until such method is adopted. This object ought to commend itself to all thoughtful Americans, and therefore, in our opinion, a large increase in the membership of the Association is in every way desirable, both as a means for raising funds and for the influence which comes from the power of numbers. Aid extended to this Association will not be effort wasted.

Mr. Charles Eliot suggests in another column the formation of associations for the purpose of holding and protecting for the public benefit pieces of ground like that covered by the Waverly Oaks, of special beauty or of special interest. Such an association, as we pointed out last year, exists already in the town of Cassanovia, in this state, and the beautiful falls of the Chittenango are preserved by its efforts in all their wild picturesqueness. Spots of unusual natural beauty, or of real historical interest, may still be found near many of our cities, and there can be no doubt that such places should be preserved for the people who seem destined, in ever increasing numbers, to throng American cities. The work of securing these bits of scenery, as well as open spaces or play-grounds in what is still the country, but which sooner or later will be covered over with bricks and mortar, cannot be undertaken too soon or pushed too energetically. Such pieces of ground can often be secured now with a comparatively small outlay in money, and the necessary authority for holding

them can doubtless be obtained from other state governments as it has from that of this state. Contributions of money would flow into the treasury of such an association as soon as people became convinced that it was managed judiciously and for the best interests of the public, and the only real difficulty in carrying out Mr. Eliot's excellent suggestion will be found in securing persons of the necessary attainments for such work with the leisure requisite for the organization and management of such a trust. Good men and women for such work are difficult to find always, and the most fitting have generally their hands more than full with public and private duties.

We have occasionally suggested that perhaps the projectors of immense storage reservoirs for purposes of irrigation neglected to take into account the danger which threatened life and property from these great volumes of imprisoned water. The reply to these cautions has always been that the problem was a simple one to engineers who understood the physical conditions in the arid regions, and that American skill could be trusted with the construction of the needed dams, which could be made absolutely safe. The bursting of the great Walnut Grove reservoir in Arizona, however, seems to justify all the warnings that have been sounded. This work has been spoken of as a masterpiece of engineering skill. It has been illustrated in the press as one of the wonders of the country, and was pronounced perfectly able to withstand any possible pressure from floods. And yet it gave way at the very first serious onset of the waters. The horrors of Johnstown were not repeated simply because there were not so many people in the track of the torrent. It is a misfortune that Major Powell is less zealous to protect the natural reservoirs furnished by the mountain forests than he is to construct artificial ones, which certainly are less safe, and which may be less effective than he imagines.

The Art of Gardening—An Historical Sketch.

XVIII.—The Mahometans in Persia.

HAVING glanced at India as it was before the advent of its Mahometan conquerors, we may now turn back to Persia, where these conquerors were to learn their skill in the art of gardening. Persia is exceptionally interesting to the student of history in any of its branches because it has so often refreshed its power under the rule of a new dynasty or a new race. From the time of Cyrus to our own, whatever the name and the faith of its rulers, the individuality of Persia has never been wiped out, and national tastes have persisted and have influenced both the East and the West. In the sixth century of our era not even Justinian's capital on the Bosphorus was more splendid than Ctesiphon, the capital of the Sassanid sovereigns of Persia, and their love for pleasure-grounds is embalmed in anecdotes that are repeated in every school history. Poetical and religious writings still more clearly reflect the national passion for gardens. St. John pictures a purely architectural paradise as the home of the Christian blessed. But the seventh heaven reserved for the followers of Zoroaster, as described by writers of the Sassanid period, was to be a garden with paths of polished gold, filled with flowers and fruits and odors and with pleasure-houses of diamond and pearl; and one special spot is described at length. Here, in white and golden robes, on thrones of gold and silver, will sit the genii of water, of fire and of plants, and with them the souls of "governors and officials, who have not failed in good works, who have dug fountains and canals, built aqueducts, established inns and resting-places for weary wanderers, laid out gardens for the pleasure of the poor, and not impiously hewn down trees and plants; who have guarded the sacred fire and followed the religion of Zoroaster."*

Into the luxurious and intellectual land of Persia broke the rude, conquering, proselytizing Arab shortly after the death of Mahomet in the seventh century. Here, for the first time, he came in contact with a highly developed civilization. Here he quickly absorbed its lessons, and, gradually amalgamating with the native Persian, developed the arts and sciences which he found in bud; and hence all he had learned was carried westward over half the ancient empire of Rome and eastward much farther than the Roman had ever gone.

There was no united kingdom of Persia for centuries after the first Mahometan inroad. But this fact only served to increase the splendor of the land at large, each district having its lordly ruler and flourishing under his lavish hand.† When we speak of Bagdad in the time of Haroun-al-Raschid, when we read of it in the "Arabian Nights" or the poems of Persian singers, we think of a city of gardens, shadowy with Cypress, Poplar and Plane, plashing with innumerable fountains and rivulets, sweet with a thousand odors, brilliant with a myriad flowers by day and a million twinkling lamps by night. Bagdad without its gardens, or Damascus, or Shiraz, or Ispahan, would be like Rome without its hills, like Venice without its waves.

The western Asiatic, with his strong feeling for architectural beauty, never made the mistake of surrounding stately buildings with grounds of a purely "natural" character. His urban gardens, as we can be sure even from the fanciful descriptions in the "Arabian Nights," and as will be shown when we speak of the gardens of the Arabs in Europe, were formal in arrangement, with marble walks and benches, regular avenues, and a multitude of fountains and pavilions. Shade and coolness were the things he cared for most, and the odor of flowers was as much prized as their beauty. But the semi-poetic, semi-fantastic cast of the west Asiatic mind leads it to appreciate picturesqueness and variety as well as symmetry; and whenever it has been inspired by romantic landscape forms, it has reproduced their charm in appropriate situations. A mediæval writer, Abu Ishak Ibrahim, called El Istachri, in his "Book of the Roads of the Countries" (which treats of the whole of Islam, but especially of Persis), tells of five thousand country-houses or "castles," some standing in the neighborhood of towns, but some deep in the mountains. Half a dozen centuries make as little change, very often, in the tastes and customs of oriental as does half a century in those of occidental nations. Modern Persia is but the degenerate child of mediæval Persia; and thus, when later on we shall read of the aspect of the Persian country home of to-day, we shall realize that in mediæval years a romantic wildness, carefully simulated by art, distinguished its grounds when the natural character of the landscape permitted.

The planting of shade-trees along streets and highways was sedulously practiced in mediæval Persia. Teheran was called "the city of Planes," from its embowered streets, and the Plane was everywhere the favorite tree for such purposes.‡

What we call Saracenic architecture was born under the Mahometan rulers of Persia, and was based on ancient Persian elements. So, too, was the gardening art that accompanied it as it spread to the Atlantic and the Ganges. There were no such masters of the art of gardening as the Mahometan shahs and khalifs during the whole thousand years which divided the eclipse of classic architecture from its renaissance in modern Italy. While Gothic architecture was so splendidly developing in the north, gardening art, as we have seen, scarcely there deserved the name. But the two arts flourished hand and hand in the Mahometan south, and, indeed, the work of the mediæval Mahometan gardener has, in some respects, never been surpassed. Is it not interesting to know that in this case, as in the case of ancient Athens and Rome, the first impulse, the first teaching, came from Persia?§

All along the north coast of Africa and over many of the southern shores of Europe the Mahometan conquerors gradually spread, at first destroying like very Goths, but soon repairing the relics of ancient beauty which they found, or creating new beauty on newly chosen sites. In the fourth century, as has been told, Belisarius found the Vandals luxuriating in a thousand villas and gardens in those parts of Africa where at first the Phœnician settlers and then the

*Justi, "Geschichte des alten Persiens."

†Jaeger, in his "Gartenkunst und Gaerten," compares the influence upon national culture exerted by these local capitals to that exerted by the many small courts of Germany during the seventeenth and eighteenth centuries. But it should be remembered that in the middle ages there were no other countries where science and art were similarly fostered. "Their splendid palaces," says Hallam, "History of the Middle Ages," of the khalifs of Bagdad, "their numerous guards, their treasures of gold and silver, the populousness and wealth of their cities, formed a striking contrast to the rudeness and poverty of the western nations in the same age. In their court, learning, which the first Moslems had despised as unwarlike, or rejected as profane, was held in honor."

‡Benjamin: "Persia and the Persians." Colonel Yule, in the notes to his edition of Marco Polo's "Travels," gives an interesting account of some famous Plane-trees in Persia: and the Venetian adventurer's own story of the "Old Man of the Mountain" and his "paradise" well illustrates the national delight in gardens.

§The inborn oriental love for gardens shows, of course, in Mahomet's own descriptions of paradise; but, although the imagination of the Arab had been fired by the achievements of others, his artistic instincts found but slight chance to express themselves until he came under Persian influence.

colonists of Rome had luxuriated before them. Here in the eighth century the new race of garden-lovers found the relics of many pleasure-grounds and utilized for their rehabilitation the huge aqueducts and tanks that had been built by Phœnician and patched by Roman hands—works that even to-day exist, although now amid wholly desert surroundings.

On the little island of Mascali, off the coast of Catania, lay a Saracenic garden often visited by the Crusaders, and described with the enthusiasm of men fresh from the rude, inhospitable north. The garden called "Zisa," which the Saracens laid out near Palermo, in Sicily, excited admiration even in the sixteenth century. It had a great central building with colonnades and pavilions surrounding a marble basin; another larger piece of water encircling a kiosk with a gilt cupola and rich stucco and mosaic decorations; and walks canopied with trellises leading to a park two miles in circumference, which was probably a preserve for curious animals. The garden of the "Moorish palace" of Navello, near Salerno, still shows remains of terraces and plantations which "delight the eye of the connoisseur." ‖

New York City. *M. G. Van Rensselaer.*

Holiday Notes in Southern France and Northern Italy.—XII.

ANTIBES, the Antipolis of the ancient Greeks, is a small, lively seaport of about 6,000 inhabitants, beautifully situated on a promontory commanding magnificent views of the Mediterranean and the Alpes Maritimes. The only relics of antiquity it can now boast are a couple of towers; these, however, as well as the strong fortifications built by Vauban, we pass over without remark, for the real object of our pilgrimage to Antibes was to visit the famous gardens of the Villa Thuret, so ably managed by M. Naudin. After the death of M. Thuret, the late proprietor, the gardens became the property of the French nation, and they are now used for experiments in the open-air cultivation of tropical and sub-tropical plants. M. Naudin has made a special study of the species of Eucalyptus which are now grown in such large numbers in the Mediterranean region, and, as far as Europe is concerned, he is the authority for this large, difficult and very variable genus.

The Villa itself is clothed with such creepers as Bougainvillea, Tecoma and other showy plants which in England we have to cultivate in a warm house; behind it is a fine grove of Stone Pines. An entire number of GARDEN AND FOREST would not more than provide space for a catalogue of all the remarkable plants at Antibes, and but a very small proportion can therefore be enumerated now. Palms are well represented by remarkably fine examples. The finest specimen of *Jubæa spectabilis* we had ever seen has a huge trunk about two yards through at the base. *Sabal Blackburniana*—of which there is a grand plant in the Palm-stove at Kew—is here in excellent health, as is also *S. Havanensis* and some other species. *Livistona australis* and *Cocos australis*, the latter bearing a plentiful crop of fruit, are also especially worthy of mention.

Erigeron mucronatum—or, as it used to be called in English gardens, *Vittadenia trilobata*—made a very neat and pretty border along some of the walks. In sunny open spots Mesembryanthemums were very effectively used in a similar way, among them the large yellow-flowered *M. edule*—the Hottentot Fig of the Cape of Good Hope.

Many remarkable conifers are to be seen at Antibes. Here for the first time we had the pleasure of meeting with the Chinese Weeping Cypress, *Cupressus funebris*, in its adult condition, exactly similar in appearance to the species as figured by Fortune in his "Travels." In Britain—at any rate, in the neighborhood of London—this interesting plant, though growing freely enough for a time, gets injured badly by frost or killed outright every ten or a dozen years. Side by side with the Cedar of Lebanon, the Deodar, *Abies Pinsapo*, etc., which thrive so well with us, such sub-tropical species as *Pinus Canariensis*—here a large, handsome tree with rich red bark, the Mexican Cypress, *C. Benthamiana*—a fine tree with spray of the richest green, *C. pendula glauca*—a species with very glaucous leaves, said to be of Indian origin, the Bunya-Bunya Pine of Queensland—*Araucaria Bidwilli*—were noted in luxuriant health and beauty. *Abies Cilicica*, too, which can hardly be made to exist in the open at Kew, is, at Antibes, a handsome pyramidal tree.

Succulents are largely grown, and all the species previously mentioned in former chapters of my holiday notes, together with many others, are to be seen in the Jardin Thuret. *Beschorneria yuccoides*—or, at any rate, a plant so named; for it differs from the Kew specimens in being distinctly filamentose—has a stem seven or eight feet in height, surmounted by a crown of huge leaves. One of the finest of all the Yuccas, the Mexican *Y. filifera*—so well figured in GARDEN AND FOREST, vol. i., page 78—formed a conspicuous feature on one of the lawns; a group of five huge stems, some fifteen feet in height, produced a fine effect.

A Mexican Berberis, *B. trifoliata*, with its dense growth and rigid spiny leaves, is one of the most conspicuous of the dwarf shrubs. A thorough contrast to this is the Eastern Australian *Citriobatus multiflorus*, with its small, round, deep green leaves and spines (abortive branches) twice as long as the foliage; this peculiar member of the Pittosporum family forms an excellent fence.

Away from the Villa Thuret, toward the end of the promontory, the Lentisk, Myrtle, Smilax and other indigenous plants, with here and there various Mesembryanthemums, etc., which have become naturalized, thrive in wild luxuriance among the rocks facing the sea, where in times of storm they are dashed with salt spray.

Kew. *Geo. Nicholson.*

‖ Jaeger: "Gartenkunst und Gaerten."

Foreign Correspondence.

London Letter.

AN event of very great importance to English horticulture is the decision of the Royal Horticultural Society to build for itself in a central position in London an exhibition hall, offices and library. The sum of £40,000 is to be raised in a manner both novel and commendable—*i. e.*, the fellows of the Society and their friends are to lend the money, which is to be invested by trustees partly in first-class securities yielding three and a half per cent. interest, which will be required to pay ground rent, and partly in the new buildings. About £3,000 was promised at the general meeting on Tuesday last. The money is to be repaid without interest by the annual redemption of bonds.

This scheme was unfolded to the fellows by Baron Schroëder, a most liberal patron of horticulture, a member of the Council of the Horticultural Society, and one of the most successful bankers in London. The interest and zeal of the Baron in this business are looked upon as being an assurance of its success. In his speech the Baron commented on the very marked development in the last year or so of a taste for gardening and flowers among the business men of England and especially of London. The Society has only to place itself at the service of these thousands of recruits to horticulture to secure their fellowship and support. The Royal Agricultural Society numbers about 10,000 fellows and spends thousands of pounds annually in the promotion of agriculture in England. Horticulture, which is almost as important an industry as agriculture, is in need of the same unity and assistance, and the Royal Horticultural Society is the body on which the work of organization to this end naturally devolves. At present English horticulture is almost a house divided against itself. In no country in the world is horticulture of so much importance as in England, and yet until now nothing has been done to collect its forces and unite its followers under one banner. Baron Schroëder's scheme is a great step toward a remedy for this state of things. In a few years we shall wonder how the present want of a home and head for gardening and its followers was tolerated so long.

The plants shown last Tuesday included some interesting novelties. Large groups of Lenten Lilies (Hellebores) in variety, some poor, some exceptionally good; of Persian Cyclamens, early Daffodils and other herbaceous plants, were sent by various nurserymen. Messrs. Lee, of Hammersmith, once famous for Australian plants, now chiefly for hardy trees and shrubs, exhibited a tastefully arranged group of ornamental-leaved and bright-berried shrubs, such as could be employed for the embellishment of the out-door garden in winter. Aucubas, rich in berries and color, standard Ivies, Laurustinus, Osmanthus, Pernettyas, many kinds of conifers, Euonymus, etc., all remarkable either for variegation or elegance of habit—these were arranged in a sort of parterre garden. A very elegant Yucca, perfectly hardy and as graceful as a Cordyline, was represented by many beautiful examples. It is called *Y. plicata*, apparently a garden name. This plant is certain to prove of great value in countries where the Australian Cordylines cannot be grown out-of-doors, as it is an excellent substitute for them and as easy to manage as any garden Yucca. Of the plants known to me it is most like *Y. Peacockii*, a supposed Mexican species, described by Mr. Baker about ten years ago.

As is usually the case at these meetings, the Orchids were well represented. A strong spike of flowers of *Phalænopsis F. L. Ames*, recently figured in Garden and Forest, was exhibited by Messrs. Veitch, who also sent examples of *Cypripedium Lathamianum*, a handsome hybrid from *C. Spicerianum* and *C. villosum*, and especially interesting as being the first known instance of precisely the same result having been obtained by crossing two species both ways. As a rule, the difference between the progeny of two parents crossed differently is well marked and often wide. *C. Rothschildianum* was exhibited in flower, the raceme bearing three very fine blooms. It was named *C. Elliotianum*, but a comparison between it and the figure in the *Botanical Magazine* proved the name erroneous. There are good reasons for believing that the difference between *C. Rothschildianum* and *C. Elliotianum* is merely varietal, and that in many collections the same plant does duty for both. A handsome variety of *C. cardinale* named Vanner's variety was remarkably like your native Moccasin flower, *C. spectabile*.

Odontoglossum ramosissimum, introduced in 1871, remains a rare plant, although it is distinct and handsome. The flowers are two inches across, full, pale rose-purple, showing white here and there, wavy, the lip narrow and reflexed. A strong plant, bearing a stout, many-flowered panicle, was shown and received a first-class certificate. This species is very distinct and unusual in color amongst Odontoglossums. Some wonderful specimens of *Cœlogyne cristata*, *Cypripedium insigne*, *Lycaste Skinneri* and other well known Orchids were shown as examples of exceptional culture. The Cypripedium was a grand mass of foliage, and bore over a hundred expanded flowers. It was in a twelve-inch pot.

Greenhouse Rhododendrons were shown by Messrs. Veitch, amongst them being some beautiful deep colored hybrids recently obtained from *R. multicolor*, a Sumatran species introduced about five years ago, and distributed by Messrs. Veitch under the name of *R. Curtisii*. The charm of these new hybrids is in their dwarf, bushy, compact habit, small, dark green leaves and the brilliancy of their flower-colors. The Rhododendrons from the mountains of the Malaya regions are proving as plastic and prolific of beautiful garden plants, under the manipulation of Messrs. Veitch, as did the Andean Begonias in their hands about ten years ago. I believe I have already related in your paper the success met with at Kew in the cultivation of this class of Rhododendron in the large winter garden, where the temperature in winter sinks to forty-five degrees. It is quite clear that whilst they grow and flower freely when treated as stove or warm house plants, almost every one of the Malayan race of Rhododendrons may be successfully managed in a cold house. They require a rich peat soil and plenty of moisture at all times.

Washingtonia filifera.—The article by Mr. Parish on the Palms of California is a most interesting and valuable contribution to our knowledge of some of the most useful of European garden Palms. What he states with regard to Washingtonias and their names is fully borne out by observation here. I do not believe there is even a varietal difference between the plants called *W. filifera* and *W. robusta*. This conclusion was arrived at after seeing great numbers of these plants on the Riviera, where Washingtonias are very common in gardens. In a report on the garden plants of the Riviera which I wrote for the Kew *Bulletin* in December last the following particulars of these plants were given. I quote them as interesting when placed by the side of Mr. Parish's statistics re the distribution and dimensions of Washingtonias in California:

"Equaling the Canarian Phœnix (*P. Canariensis*) in its extensive use, in its proportions and in rapidity of growth, is the Washingtonia. The growth made by this Palm on the Riviera is astonishing, and it appears to thrive equally well in all the stations. There must be hundreds of thousands of plants of it in the gardens and nurseries visited, and the prices asked indicate that there is a great demand for it. . . . It does not appear to have been introduced into European gardens before 1875, and is therefore a comparatively new Palm. Notwithstanding this, there are some very large specimens of it on the Riviera, where it is called Brahea or Pritchardia. I could not see any characters in the plants pointed out as *W. robusta* to distinguish them from *W. filifera;* the reddish hue of the petiole at the base appears to be the principal difference.

"At Villa Valetta, Cannes, on a sloping lawn in front of the house, is a grove of about sixty magnificent specimens of this Palm, to me a marvelous sight. Most of these plants had huge onion-shaped stems, ten feet in circumference at the base and about ten feet high, some even higher. The crown of foliage was twenty feet through, and was composed of from fifty to eighty leaves, each with a stout armed petiole five feet long, a blade four and a half feet across, and ornamented with numerous white, hanging filaments a foot long. I was assured that the largest of these plants was not more than twelve years old, and from the date of the introduction of the species this cannot be far from correct. At Nice I saw a specimen the stem of which was fifteen feet high. In exposed situations within a few yards of the sea this Palm is perfectly healthy."

The dead leaves are not allowed to remain on the stem, consequently the appearance of this Palm on the Riviera is very different from that of the wild plants as described by Mr. Parish. The Riviera gardeners manure their Palms most liberally and in dry weather they are kept well supplied with water.

Mr. Parish does not mention *W. Sonoræ*, a new species described by Dr. Sereno Watson, who sent a few seeds of it to Kew in 1888, from which we have now about a dozen good plants. At present their most striking character is the deep crimson-brown of the petioles and stem.

London. *W. Watson.*

Hypericum Kalmianum.

Hypericum Kalmianum was one of the first of the American Saint John's Worts described, having been discovered by the Swedish botanist, Kalm, whose name was bestowed upon it by Linnæus, probably at Niagara Falls, which he visited in 1750. It is a straggling bush, growing to a height of two or three feet, with rather contorted four-angled stems, covered with thin, exfoliating reddish bark, slender two-edged branchlets, and crowded oblanceolate pale leaves one to two inches long. The flowers are bright yellow, an inch across, and begin to open early in July. The pods are ovate and five-celled, a character which best distinguishes this species from the nearly allied *H. prolificum* of the middle and western states, the pods of which are three-celled.

Hypericum Kalmianum (see page 113) is rather a rare plant, being confined to lake and river-cliffs from the Falls of Niagara, where it is found on Goat Island, to the northern Lakes. Like the other shrubby Hypericums, it is an excellent garden plant, although less showy in flower than some of the other species. They all bloom at midsummer, when few shrubs are in flower; and grow easily, flower profusely, and are not particular about the treatment they receive.

New or Little Known Plants.

A Giant African Aloe.

A. Bainesii.

THE picture on page 115 is taken from a photograph made in Grahamstown, South Africa, and represents one of the most remarkable of the many arborescent species of Aloe found on the African continent. *A. Bainesii* was first described by Mr. Thiselton Dyer, the present Director at Kew, in the *Gardeners' Chronicle* in 1874, and it was named in honor of its discoverer, Thomas Baines, the African explorer, whose book, "Explorations in South-west Africa," is a most interesting account of his journey from Walwisch Bay to the Victoria Falls, which he accomplished in 1861–62.

The discovery of the Aloe is referred to in this book at pages 33, 34. Baines was at the time about a hundred miles east of Walwisch Bay, and near the Swa-kop River, when he noticed "what seemed like an ordinary Dragon-tree or Baobab, a familiar object to the South African traveler. On approaching to sketch it more minutely I found that it was a gigantic Aloe. Kneeling on the ground so as to bring my arms low enough to embrace the solid trunk, I found its circumference to be nearly twelve feet. Above this it divides into five stems, each of which at nearly the same height sent forth branches as thick as my arm, of uniform size, even to the top, where they were crowned each by the well known star of Aloe-leaves, and adorned with three or more magnificent spikes of yellow flowers. The stems were smooth and round; but at the base the bark appeared

to burst and curl off in large flakes, as if their veneers of fine satin-wood had warped off the foundation they were laid on. The effect of this magnificent crown of leaves and flowers, perfectly rounded in contour, and fifteen or more feet in diameter, and as many from the ground, contrasted with the sterile rocks on which it grew, was lovely in the extreme."

The same traveler found this same species on the opposite side of Africa—namely, in northern Natal—and he forwarded a living branch of it to Kew, from which a plant now in the Kew collection was obtained. About the same time a missionary in Kaffirland sent to Professor Macowan a description of an arborescent Aloe, which was considered distinct from *A. Bainesii*, and described under the name of *A. Barberæ*. It has been proved, however, since that time, that the two plants are identical.

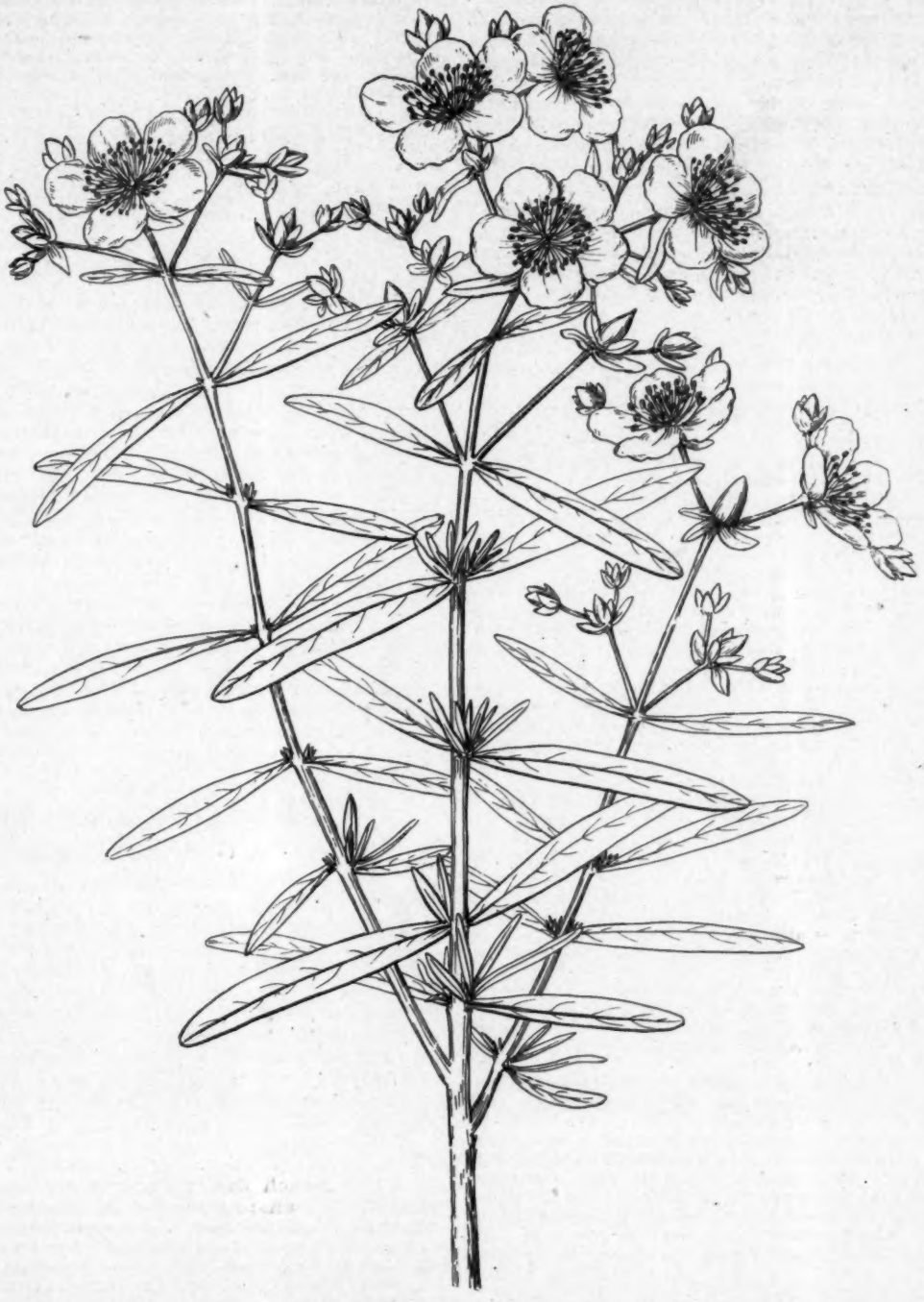

Fig. 24.—Hypericum Kalmianum.—See page 112.

The illustration represents three plants which had been brought about twenty-five years ago from the Transkei, in Kaffirland, by Commandant Bowker, and presented to Sir Walter Currie, who at that time was residing in Grahamstown. They are at the present time in magnificent health, the dimensions of the largest being as follows: Height,

twenty-four feet; diameter of head, twenty feet; girth of stem at base, nine feet; girth eight feet from the ground, seven and a half feet; length of leaves, two and a half feet.

There is a beautiful specimen of this Aloe on one of the lawns in the Botanical Gardens at Grahamstown. The frequent branching, smoothness and roundness of the stems and remarkable habit of bark-peeling, similar to what occurs in the Oriental Plane—these characters, as well as the gigantic stature of full-grown plants, place this species of Aloe among the most remarkable of the many vegetable monsters found in Africa.

The practical value of this picture is in its presenting the features of a plant which may be grown in temperate and sub-tropical countries, and which is one of the easiest of Aloes to cultivate. In Grahamstown slight frosts are not infrequent, whilst the summer temperature and other climatic conditions are about the same as those of New York. In the south of France many species of Aloe are grown in the open, and their flowers make a magnificent display. It is easy to imagine the fine effect that might be produced in many gardens of your southern states by groups of such plants as these arborescent Aloes. In dry countries, or in poor, rocky localities, the African Aloes would be quite at home.

Kew. *W. Watson.*

Cattleya labiata Warscewiczii, Autumn-flowering.

Cattleya labiata Warscewiczii, or *Cattleya gigas*, as it is often called, is a well known summer-flowering form. According to Messrs. Veitch (in their Manual) it generally flowers in the Orchid-houses of Europe in July and August, but it is not unusual for flowers to appear in May and June. A letter just received affords evidence that it may flower later as well as earlier than the usual period. The editor of Garden and Forest writes: "I enclose for your consideration a Cattleya flower and a sketch of the same. It is from a plant purchased by Mr. F. L. Ames several years ago from Low & Co. as an imported *C. Mendellii*. You see, however, that the flower is quite distinct, or, at least, Orchid people here say that it is, and, moreover, it flowers always late in November and in December, a peculiarity which gives this form great garden value. The leaves are short and broad like those of *C. Mendellii*. It is certainly a very showy and beautiful thing." The last remark I fully endorse, for the dried flower is seven and three-quarters inches in diameter, and the color very brilliant, so that when fresh it must have been a superb thing. On comparison it seems to me, botanically, identical with the form named above, well known to be the largest and most distinct of the Labiata forms, and one which, even when dried, can hardly be mistaken for any other. The sepals and petals are of a bright rosy mauve, the front lobe of the lip rich crimson-purple, and behind this are situated two large bright yellow blotches, separated by the reddish-purple disc. If the autumn-flowering habit should prove constant, as would appear from the letter, it is certainly a very valuable acquisition. That the plant should have been imported as the variety Mendellii is perhaps not remarkable, seeing that both are natives of the eastern Cordillera of New Granada, though I am not sure whether both have been found growing intermixed. It is just possible that Messrs. Low & Co. have some memoranda on the subject of the particular importation in which it appeared. Unfortunately such information is not often easy to obtain, especially when the subject is such a handsome plant as is the present one.

Herbarium, Kew. *R. A. Rolfe.*

Since the above was written I have received a note from Mr. William Robinson, gardener to Mr. Ames, stating that the habit is remarkably like that of the variety Mendellii, and that it has maintained the same character for five years consecutively, flowering in November and December, after which it commences to make its growth, which is matured some four or five months before its flowering season, exactly as in *C. labiata vera.*

Cultural Department.

The Watermelon.

THIS fruit grows in hot countries generally, but has not so great a range of climate as the Cantaloupe. It appears to be divided into two distinct classes—one adapted to very hot localities, and the other not able to bear well more than a limited degree of heat. Those from the tropics grow larger and finer in this latitude, and the melons of Spain and Italy do as well here as in those countries, although but few of them are worth introducing. Watermelons from milder climates than ours will grow in New Jersey soil, but are never inviting in flavor. When cut open they crack before the knife with a sort of explosive sound; are often white-fleshed, and seldom of a rich red; they are deficient in sweetness, and the flesh is sometimes tough. I have found one desirable Russian melon, one Spanish, three Italian, one Cappadocian, one Japanese and one African, in a large number of varieties tested from many countries. All of the vines I have examined were of the same peculiar, well known character of leaf, except one from Liberian seeds, which had a large, solid, ovate-pointed leaf, set close to the stem, and growing right and left alternately, and parallel with the ground.

Watermelons are long, semi-long, oval and round; their seeds are black, brown, white, red, buff, gray and mottled. All of these colors may be found in very large, medium and very small seeds. As a general rule, a large melon bears large seeds, and *vice versa*, but there are exceptions. White-rinded melons may have very small black seeds, as in the Russian, or may be large and white, or buff with a brown edge. The most delicious melons, as a rule, are thin-rinded, and pink or dark red in flesh. Such Watermelons do not bear transportation well, the breakage in some being up to fifteen per cent. In interior colors we also find white, yellow and amber-colored.

Many foreign melons have very tiny seeds, and some of the fruits may be readily eaten by one person. Orange melons, or those having an easily separated rind, are said to be produced of very small size in Bulgaria and the extreme south of Italy, but have not yet been grown here.

Watermelons with very small seeds, down to half an inch in length, are quite abundant in some countries, especially southern Russia, Armenia and Sicily. In Persia the favorite is called a "black Watermelon," from its very dark green color, as we have the "black Italian"; it is very thin-rinded, and is easily broken in transportation. The Japanese produce a melon of a long apple-shape, having very tiny seeds and a thin rind, that grows well in our climate, and has been considered an excellent variety by private growers, but its small size has prevented its acceptance by the trade. Such fruits make good hybrids with larger varieties.

Large, tough-rinded, symmetrical melons of fine quality, which keep and carry well, are now produced in enormous quantities in our Southern States, and some may be carried in good condition to Europe or kept from the last of September to Christmas. As an article of diet the Watermelon requires a better digestive power in the eater than is required for the Cantaloupe, and some dyspeptics who consume the latter with comfort, do not dare to more than taste the former.

This country now produces a greater variety of large Watermelons than ever before, and they can be grown to a heavier weight. In 1800 there were melons in the Philadelphia market that measured forty-five inches in girth; but they did not grow them in our country of 108, 111 and 125 pounds until within a few years, when new varieties reached these weights, in favorable seasons and localities.

In the olden time, our Watermelons were chiefly long, oval, dark green or striped, and had large black or brown seeds. Spanish seeds produced our first thin-rinded melons; but these soon changed in character under the work of the bees. Spanish melons are still grown, but are altered in form over those produced by imported seeds.

The French have a peculiar way of keeping a melon; the fruit is cut with a long stem, which is coiled up and then buried under brown sugar to keep it from drying up by exposure to the air.—*From a paper read before the Pennsylvania Horticultural Society by Robert P. Harris, M.D.*

Reinwardtias.

THESE plants must be classed among the best that can be grown for the decoration of a warm greenhouse during winter. There are three species, all of which are found in a wild state on East Indian mountains. Regarding the species, Sir Joseph Hooker says there is good ground for believing the three to be mere varieties of a common type, and the two in cultivation would certainly confirm that opinion. These are *R. tetragynum* and *R. trigynum*—the latter perhaps better known as *Linum trigynum*. They are dwarf shrubs, of free growth and neat habit, with leaves of a pleasing dark green color, and large bright flowers, which, in the former, are of a delicate sulphur color, and in the latter of a more distinct yellow. At the outset it must be understood that these plants can be grown satisfactorily only by those who command a

greenhouse in which an intermediate night temperature (*i. e.*, a temperature of about fifty degrees) is maintained during the winter months. Many attempt their cultivation in cooler houses, and, being unsuccessful, the plants are regarded as worthless. Where proper attention is given to their requirements, on the contrary, they are most useful and attractive. Young plants are the most satisfactory, and they may be readily obtained from cuttings. The points of robust shoots will be found most suitable for cuttings; and, early in April, they should be inserted in pots containing sandy compost, then placed in moderate bottom-heat, kept close and shaded until rooted. Shading will then be unnecessary; air may be admitted daily; the plants. The syringe must be used three times a day, so that insects may be kept in check and the surrounding atmosphere kept in that moist condition which appears so essential to the health of the plants. Less shading will suffice as the weather grows cooler, and they will then require protection at night. About the latter end of September they may be removed to the house again, where the atmosphere should be kept moist until they show signs of flowering. The moisture in the atmosphere and use of the syringe may then be gradually decreased, and, finally, the syringing discontinued when the first blooms expand. Attention to watering is now all that is required to ensure a continuous display of bloom through-

Fig. 23.—A Giant African Aloe (*A. Bainesii*).—See page 112.

and, to induce bushy growth, the extreme point of each cutting should be pinched out. When new growths appear on the cuttings they may be potted-off into three-inch pots—using a mixture of loam, peat, leaf-mould and sand, in equal parts—and grown-on in a warm house, in which a moist atmosphere prevails. Five-inch pots will be found large enough to admit the full development of such plants, and when well established in these they may be removed to a cold-frame. Here the pots should be plunged to the rim in ashes, or some such material, and arranged so that the plants will be as near the glass as possible. In summer the lights will not be needed, except to protect the plants from heavy or too frequent rainstorms. Shading from bright sunshine will be beneficial, but it must be removed at night and during dull weather, and it should never interfere with the free circulation of air about out the winter. Where it is desirable to obtain larger specimens the plants thus obtained may be grown on during the following season. Flowering will be discontinued early in February, and the plants may then be removed to a sunny house and rested slightly for a few weeks. They may be cut back about the beginning of April, and, a few days after, again placed in a growing atmosphere. When growth has commenced, turn them out of the pots, reduce the balls slightly and repot in five-inch pots. On being returned to the house they must be syringed overhead regularly, but great care should be exercised in the application of water to the roots until the plants get well started. Pinch the leading shoots when the young roots reach the sides of the pots, and about two weeks after pinching, the plants that have made good progress may be potted-on into seven-inch pots, and removed

to a cold-frame when established, and afterward treated as they were the previous year. In this way old plants may be grown on from year to year, and gradually increased in size; but it should not be forgotten that they rarely give as much satisfaction as young plants raised from cuttings. As the flowers soon drop, they are almost valueless when cut; and even upon the plants they remain in perfection for only a comparatively short period; but they are speedily replaced by others, and so the plants remain attractive.

Cambridge, Mass. *M. Barker.*

Orchard Experiences.—II.

THE distance at which our various fruit-trees should stand in an orchard is a subject yet worth discussion, notwithstanding the voluminous teachings of our books and journals. For old-fashioned, slow orcharding, where standards in grass are expected to come into profitable bearing in from twelve to fifteen years, nothing is better for Apples than the old rule of forty feet each way. I would apply the same limit to Pears, notwithstanding the upright growth of so many varieties of this fruit. The habit of growth is of small importance in the premises. An upright habit gives more air and light between the trees, but this does not justify closer planting, when we remember that an upright tree may be quite as productive as a spreading one. If space is given to ensure sufficient feeding ground, the upright-growing tree, equally productive, requires as much root-room as those of a spreading growth. In these wide-planted, grassy orchards, from which the hay is annually removed, and to which only occasional top-dressings are given, we can only hope for biennial crops. Tillage and manuring is required to make annual producers. Even these will not ensure yearly crops with all varieties.

Under a different system, early-bearing sorts being used, quicker and better results may be obtained by much closer planting, provided the fertilization and tillage are commensurate. With these early-bearers, planted twenty feet each way, much more prompt and profitable results may be had. The fruit on young trees, well cared for, is large and handsome, selling at high prices, and a large quantity may be obtained in the ten or twelve years before it is necessary to thin out the orchard. The close setting is a protection to both trees and fruit; but an orchardist adopting this method must be prompt and resolute in thinning out his trees. When the crop reaches about five or six bushels to the tree it is time to remove every alternate row; and in about five years more we must take out alternate trees in the remaining rows. We then have left our twenty-five standard trees to the acre, and have taken off, meantime, enough choice fruit to much more than cover every expense. Those who adopt this method sometimes prefer to have the trees which are to be removed something else than Apples—either Plums and Cherries, or dwarf Pears. In my latitude I find the early-bearing, short-lived Russian summer Apples, especially the Yellow Transparent, best. They begin bearing quite freely within two or three years, and have seen their best days by the time it is necessary to remove them. Between the trees, one way, Currants, Gooseberries and Black-caps thrive, with no apparent detriment to the trees. This is a great deal better than the old way, especially to those who have reached middle age before beginning to plant, or to those who need an immediate income from the land. For the first five or six years Dwarf Beans and Peas, or Strawberries, may be successfully grown in the young orchard. Liberal manuring and clean culture are essential.

Newport, Vt. *T. H. Hoskins.*

Seed-growing is now the order of the day, and it is as fascinating to some of us as it is important. Success or failure often turns on very slight and apparently unimportant points, and as hints are always in order, I wish to note that in case of fine seeds, especially of Begonias, I find that success depends much on sowing very thinly. The point of a small knife-blade will hold enough seed for the sowing of a pan six inches square, and more is worse than waste, for if the soil is covered with visible patches of seed it seems to be fatal to their germination. From such a quantity of seed, sown thinly, I have known 600 plants to be pricked off, while in over-seeded pans plants appear very sparsely. The culture of Begonias from seed offers no difficulties. It is sometimes stated that young seedlings are inclined to "go off," but this must be from badly aired house, as under proper treatment there are few less "miffy" things.

Doronicum Harper Crewe, besides being a good plant for the cool house, as noted by Mr. Thorpe, is a first rate garden plant, perfectly hardy, and probably the earliest-flowering hardy herbaceous yellow Composite. It is a plant of distinct aspect, and the best of the family, about two feet in height, with numerous flowers, as described. The foliage in the open is of the light, tender green so grateful in the spring garden. In its habit of growth it resembles the Oriental Poppy, the foliage dying down after bloom is over, to start again in the fall, a valuable trait in a spring-blooming plant, since by planting something of later growth near it, one has practically two crops from the same space, always a point of importance, and especially so in a small garden. *J. N. Gerard.*

Elizabeth, N. J.

Correspondence.

The Uses and Claims of Forestry Associations.

To the Editor of Garden and Forest:

Sir.—There has been for some years past in America a marked and constantly increasing interest in, and perception of the needs of, forestry, or, to use a broader word, forest-reform—*i. e.*, the adoption of some adequate check on forest-destruction and some rational system of forest-preservation. The growth of the forest-reform idea is shown in the conversation of the people one meets, in the columns of the newspapers, in the existence of your own journal, devoted in part to the subject, and also in the formation of a few forestry associations, of whose work, indeed, it is itself partly a result. Yet though thousands are aware of the evils we now suffer from forest-destruction, and of their necessary continuance and increase unless our treatment of forests be radically changed, practically nothing is done. The tree-planting in the prairie states has been chiefly for shade or wind-breaks, not for timber supply, or to protect the sources of streams, which usually rise in the hills, where the axe is known, but not the spade. In the east some enthusiast may have here and there reclaimed a few waste acres by planting, and taught a good object lesson thereby; but of real forest-reform, the systematic retention of forests where they are needed, especially on mountain slopes, their cutting with a view to future growth, and their protection from fire, there has been practically nothing, east or west. In New York, the appointment of three gentlemen to protect the forestry interests of the state and the sources of the Hudson and Mohawk, without pay, would be laughable were it not too serious; yet this, and the slight check on fire thus brought about, is more than almost any other state has done. Common sense bills have been presented, both in Congress and state legislatures, but they have never come out of the committee rooms alive, and the prospect, except possibly in New York, is not much more encouraging now than it was ten years ago.

In short, it must be confessed not only that, in the vast majority of cases, the interest really felt in forest-preservation has not resulted in any actual work, but even that a great deal of honest and conscientious effort has been wasted. The reason, to my mind, is not that there are not enough people who believe in forest-reform, but that they are not sufficiently united, or, to speak plainly, that only a very few of them belong to forestry associations. That union is strength, and disunion weakness, no American needs to be told. It cannot be claimed that the forest-reformers have hitherto shown any of the fruits of strength, and that they are not united the small membership of the American Forestry Association and the few state and county societies clearly proves. The Pennsylvania Association, founded in 1886, heads the list with 650 members; but can one imagine that there are but 650 people out of the 4,000,000 inhabitants of that state who care for forest-reform, and can afford a dollar a year toward obtaining it? The smaller numbers of the American Forestry Association may be due to its origin as primarily a congress of delegates from state societies, not an association of individuals, but, owing to the lack of delegating bodies, its strength is chiefly derived from its own members. If the associations, the only visible bonds of union between believers in forest-reform all over the country, are few and small, is it not due to this that, in spite of the warnings both of intelligent men, and of drought, and flood, and land-slide, warnings whose truth is widely realized, forest destruction continues unchecked in America?

Forestry associations, especially if able (as none of them yet are, I believe) to employ paid officers or agents, can do a far greater work than the aggregate of their members individually. They can collect and diffuse information, instruct, encourage, develop public opinion, secure and enforce legislation, and work in many ways for which individuals lack time, money, opportunity or popular support. Owing to lack of means their work hitherto has been small, but not wholly profitless, and not a tenth of it would have been done without them. Besides, they give individual effort a scope and stimulus as nothing else does. A man deeply interested in forestry

is far more likely to speak and write about it, to get up meetings for it, to seek to have it taught, to urge legislation for it, to have it tried on his own land or that of his hunting and fishing-club, if he belong to an association, and feel it a duty to his associates to spread the gospel in every way he can, than if he do not; and those who can do the least individually can, by their subscriptions, greatly increase the opportunities and effectiveness of the workers.

Two very useful classes of people have as yet held aloof in large numbers from the forestry associations—viz., those who know something about forestry and those who do not. The latter, as the majority in the community, must largely constitute any forestry association which hopes to wield the powerful influence of numbers in this democratic land. They are ten times as likely to learn something about forestry inside an association as out of it, and their sinews of war are as good as those of the greatest scientists. To scientists, however, a successful association must always look for inspiration and guidance. The principal officers ought certainly to be men of reputation, especially in forestry and botanical science. How else can a forestry association attract outsiders, and show them that it exists for real work, to be done by real workers, and not to amuse a few amateurs? What influence upon public opinion and public men can an association exert when many of those best fitted for its peculiar work stand aloof? It should not be forgotten that the American Forestry Association is the child of Hough and Warder, and their successors in the work of investigation and instruction should succeed them also as the natural guardians of this and kindred bodies. Of course, every such society includes some scientific men, but not enough of them. If they think these associations too amateurish, let them personally add the leaven of practical science.

It may be urged that existing agricultural and horticultural societies can do the work. If they are willing to undertake it, well and good; but they usually exist chiefly for the instruction of their own members, whereas forest-reform, for many years to come, can only be achieved by enlightening the people and developing public opinion.

To conclude, I do not see how real forest-reform can ever be secured in this country except by the work of associations organized for that purpose. The effectiveness of this work must depend on the numbers, the liberality and the intelligence of the members. On all men and women who believe in forest-reform such a society has a claim, whether they can give but a little money and a good word, or the talents and the knowledge which have been entrusted to their keeping, not alone for their own profit and fame, but for the benefit of their fellow-men.

Charles C. Binney,
Philadelphia, Pa. Cor. Sec. American Forestry Association.

A Gardener's Problem.

To the Editor of GARDEN AND FOREST:

Sir.—On page 42 of your issue for January 22d, your correspondent, Mr. William Watson, illustrates his views by some statements which seem to need correction. He mentions *Nepenthes Rajah*, a plant introduced alive to Chelsea by Mr. Peter Veitch and myself in 1878—that is, about twelve years ago, instead of six years, as stated by Mr. Watson, who may, however, have been misled by the date when the plants were distributed. This inaccuracy is a trifling matter; but one of more consequence occurs in the foot-note, where it is stated that *N. villosa* thrives "only in the hottest and moistest stove," when the fact is that this plant has never yet been brought alive to European gardens. No doubt Mr. Watson, when writing, had *N. Veitchii* in his mind, a plant totally different and distinct from *N. villosa*, although formerly grown in error of its true name as *N. villosa* in English gardens.

My friend Mr. Moore, of Glasnevin, was better informed as to the native climate and surroundings of these Pitcher plants than Mr. Watson has inferred. When I presented the plant of *Nepenthes Rajah* to Mr. Moore I also told him of the native conditions, and it is a proof of his intelligence and skill that he has so far cultivated this plant when scores of other good plant-growers have failed. These native climatic conditions are so peculiar that I may here state them in a brief way. The four most interesting Nepenthes found wild on Kina Balu are *N. Lowii*, *N. Edwardsiana*, *N. Rajah* and *N. villosa* (*vera*). They are found on the southern spur in the order named, commencing with *N. Lowii*, at 5,000 feet, and ending with *N. Rajah* and *N. villosa*, at 9,000 to 10,000 feet. This enormous mountain range is about sixty miles from the sea-coast, and the intervening country consists of low ranges of coast-hills and rich alluvial plains and marshes. The topmost peak above the great southern spur is 13,700 feet high. It naturally follows that this mountain affords an enormous range of climate and temperature. The thermometer descends to freezing point at the top, and there is sleet, but no snow has been seen. The day temperature of the sea-coast and plains is generally from eighty to ninety degrees in the shade, and perhaps ten degrees lower only on the coldest nights. The great granite peaks of this mountain, even at the distance stated, are cold enough and massive enough to attract a current of hot, moisture-laden air from the sea, and this current sets in every day about four or five o'clock. The diagram here given will illustrate what occurs better than words.

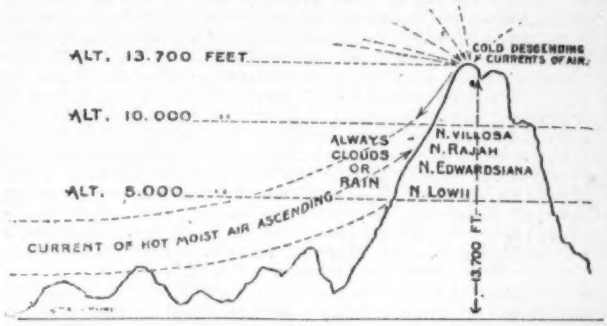

Diagram showing hot and cold air currents on the sides of the mountain in Borneo, meeting and condensing at the Nepenthes zone.

Every night in the year there is a deluge of rain in what I have called the Nepenthes zone of this mountain, that is, from 5,000 to 10,000 feet in altitude, and even if not raining in the day-time there is a constant state of what has been called "Scotch mist," or air-clouds condensing into small rain, which wets one to the skin most thoroughly in half an hour. All the time I was up this mountain (I was there on two occasions in what below were the wet and dry seasons), I never had a dry thread to my back except at night in the cave with a great bonfire blazing outside. The native guides from the last village on the road, Kiau (altitude 3,000 feet), found the wet and cold (forty-nine to fifty-five degrees Fahrenheit) on this mountain too much for them, and they became quite paralyzed and finally left for their homes rather than endure the chilly dampness of this Pitcher-plant paradise. At 9,000 to 10,000 feet altitude the trees are low and scrubby, and covered with long moss, filmy ferns (here I saw the trees draped with the rare *Trichomanes pluma*, only seen alive previously by the veteran plant hunter, Tom Lobb), and Lichens or Usnea, and creeping, monkey fashion, amongst this vegetation, was only another name for a perpetual shower-bath from the branches overhead.

From what I have said, I think that my friend Mr. Watson will perceive that when Mr. Moore transferred *Nepenthes Rajah* from a hot and dry temperature to a comparatively cool and moist one, he approached the natural conditions under which this noble plant was found growing by me, and hence, no doubt, his superior measure of success. All these upland or mountain Nepenthes are more or less difficult of culture, and extremely difficult to import, owing to the heat of the plains and the sea voyage. On the other hand, the species found in marshy forests at or near sea level are comparatively easy, requiring heat and moisture only, with a moderate amount of shade. One Nepenthes, viz., the well known *N. Rafflesiana*, is the first weed to appear after forest or jungle fires in Borneo and Labuan.

Botanical Gardens, Trinity College, Dublin. *F. W. Burbidge.*

The Waverly Oaks.

To the Editor of GARDEN AND FOREST:

Sir.—Your recent editorial on the Waverly Oaks, with its plea for the preservation of the charming scene in which they stand, prompts me to lay before you an imperfect outline of a scheme by which not the scene at Waverly only, but others of the finest bits of natural scenery near Boston, might perhaps be saved to delight many future generations.

But first a few words on another pressing problem. It is everywhere agreed that a great and growing population, such as now inhabits Boston and her wide-spreading suburbs,

should, for its own best health, provide itself with all possible open spaces in the form of public squares and play-grounds. Boston (including now the various municipalities which surround her) is far behindhand in this matter. Large areas outside of the old city are wholly unprovided with public open spaces; and while the various municipalities which compose this larger Boston continue to be fearful of spending money for the enjoyment of their neighbors, there can be little hope for much improvement. The difficulty arising from the conflicting interests and desires of these many towns and cities delayed the construction of a proper sewerage system for the suburbs, until the danger and the scandal which the lack of such a system caused fairly compelled the state to create a Metropolitan Drainage Commission, with power to plan and to build a complete main drainage and to assess the cost thereof upon the towns and cities benefited. It looks now as if the acquisition of a suitable number of well distributed open spaces must wait for the appointment of a similar commission. Meanwhile the available open ground is being rapidly occupied; and Boston, like New York, may yet be compelled to tear down whole blocks of buildings to provide herself with the needed oases of light and air.

But a crowded population thirsts, occasionally at least, for the sight of something very different from the public garden, square or ball-field. The railroads and the new electric street railways, which radiate from the Hub, carry many thousands every pleasant Sunday through the suburbs to the real country; and hundreds out of these thousands make the journey for the sake of the refreshment which an occasional hour or two spent in the country brings to them. Within ten miles of the State House there still remain several bits of scenery which possess uncommon beauty and more than usual refreshing power. Moreover, each of these scenes is, in its way, characteristic of the primitive wilderness of New England, of which, indeed, they are surviving fragments. At Waverly is a steep moraine set with a group of mighty Oaks. At the Upper Falls of Charles River the stream flows darkly between rocky and broken banks from which hang ranks upon ranks of graceful Hemlocks. These two remarkable scenes have been described in Garden and Forest; and I shall name no others, though several are well known to all lovers of nature near Boston. One is the solemn interior of a wood of tall White Pines—the tree the forefathers blazoned on their flag. Another is a Pine grove on a group of knolls in the bend of a small river, where it first meets the tide and the salt marshes. Still another is a hill-side strewn with great boulders, and commanding, by a bowl-shaped hollow of the hills, a distant view of the ocean and its far horizon. At present all these beautiful scenes, excepting such as are included in the Franklin Park and the adjacent Arnold Arboretum, are in private hands; and many of them are in daily danger of utter destruction—some of the finest spots have been destroyed within the ten last years. Most of them lie outside the municipality of Boston proper. They are scattered in different townships or along the borderlines, and only an authority which can disregard township limits can properly select and establish the needed reservations.

The end to be held in view in securing reservations of this class is wholly different from that which should guide the State Commission already suggested, and the writer believes this different end might better be attained by an incorporated association, composed of citizens of all the Boston towns, and empowered by the state to hold small and well distributed parcels of land free of taxes, just as the public library holds books and the art museum pictures—for the use and enjoyment of the public. If an association of this sort were once established, generous men and women would be ready to buy and give into its keeping some of these fine and strongly characterized works of nature; just as others buy and give to a museum fine works of art. Indeed, the association might even become embarrassed, as so many museums are, by offerings which might not commend themselves to its directors.

Lovely natural scenery supplies an education in the love of beauty, and a means of human enjoyment at least as valuable as that afforded by pictures and casts; and if, as we are taught, feeling for artistic beauty has its roots in feeling for natural beauty, opportunities of beholding natural beauty will certainly be needed and prized by the successive generations which are to throng the area within ten miles of the State House. As Boston's lovers of art united to found the Art Museum, so her lovers of nature should now rally to preserve for themselves and all the people as many as possible of these scenes of natural beauty which, by great good fortune, still exist near their doors.

Boston. *Charles Eliot.*

Orchids in Brooklyn.

To the Editor of Garden and Forest:

Sir.—It would be difficult to find better specimens of Phalænopsis than those in the collection of Mr. Frederick Scholes, of Brooklyn, and at this season of the year, when great numbers of them are in bloom, they are specially attractive. There were more than 2,000 fully expanded flowers on February 20th and the spectacle was one not easily forgotten. Among the plants I noted some good examples of *P. Schilleriana*, literally covered with its beautiful mauve colored blossoms, one specimen having eight spikes, which were short, well branched and carried over 300 flowers. To this variety the owner has given the appropriate name of *P. Schilleriana compacta*. It has three strong growths, and eighteen broad, leathery leaves, which measure from ten to fourteen inches in length. Another specimen of an admirable variety was carrying 200 flowers, while a dozen others were also equally well flowered. A fine specimen was a plant of *P. grandiflora*, with three growths and thirteen leaves, which had three strong spikes, well covered with large white blossoms. *P. amabilis* was well represented by specimens with strong stems freely branched and covered with flowers. One plant with eight very large leaves had a spike three feet long. The white and purple-spotted flowers of *P. Stuartiana* were very attractive, and one plant had produced a panicle carrying sixty flowers. *P. Sanderiana*, which much resembles a rose colored *P. amabilis*, was represented by several very dark varieties. The plants occupy wire baskets, and are suspended some two feet from the glass, and are grown moderately warm. On the stages few Orchids were seen, the space being occupied by Palms, Ferns, Eucharis, etc., which are syringed daily, furnishing an atmosphere which the plants above appear to thoroughly enjoy. In the same structure several plants of *Cattleya Lawrenceana* were in bloom, as well as of *C. intermedia*, *C. speciosissima* and *Dendrobium Ainsworthii*. Several plants of the scarce *Odontoglossum Humeanum* were in the house set apart for cool Orchids, together with the pretty yellow and brown spotted *Oncidium micropogon*, and the orange-scarlet flowered *Lælia harpophylla*. *A. Dimmock.*

Summit, N. J.

Periodical Literature.

The most interesting paper in the December number of the *Kew Bulletin of Miscellaneous Information* for horticultural readers is an account of the tropical and sub-tropical plants growing in the gardens of the Riviera, from the pen of our London correspondent, Mr. W. Watson, who was sent last autumn by the authorities at Kew to examine the garden vegetation in southern France, for the purpose, primarily, of determining whether many plants now grown in England, in stoves and other warm houses, might not be treated more successfully in a more temperate atmosphere. Mr. Watson's report contains most valuable information for the gardeners of southern California, where the climate is not unlike that of Provence and of the southern Atlantic states, and nothing but its length prevents us from reproducing it entirely. Our quotations, however, must be confined largely to Mr. Watson's remarks about Bamboos, plants which American gardeners know very little about yet, but which are beginning to attract considerable attention both in California and in Florida and Georgia. "After the Palms," he says, "the most tropical feature in the gardening of the Riviera is the Bamboos, which are largely used in the composition of the best gardens, both public and private. To a northern gardener the elegance and grandeur of some of these Bamboos constitute some of the chief charms of the Riviera. Some of the specimens are very large, as for instance one of *B. vulgaris*, in Baron Vigier's garden at Nice, which measures forty feet through in every direction, and is thirty-five feet high. It contains hundreds of stems or canes, each three inches in diameter, and straight and smooth as a gun-barrel. It is planted on one side of the lawn near the house. As fences, screens and boundary lines the Bamboos are frequently used, and nothing could be better, as they are quick growers and evergreen. All the kinds noted were in splendid health, and from the manner in which they had taken possession of the ground, it was evident that their requirements are abundantly satisfied. The finest and healthiest examples are in wet ground, often on the edge of water. Most of them are heavily manured annually.

"In England we have not hitherto made the most of this beautiful family of plants, many of which may be grown out-of-doors successfully in all the milder parts of the country,

whilst in large conservatories, where they would get protection from cold in winter, a still greater number would be found to thrive. That they are much superior to many of the plants at present used for such positions must be evident to any one acquainted with the extraordinary elegance and grace of a well-grown Bamboo.

"The Kew collection comprises over fifty named sorts, a few of which are tropical, whilst the bulk of them are either quite hardy or require only the temperate conditions supplied by the winter-garden.

"The names of Bamboos are as confusing as are those of garden Palms. In one as in the other it is only very rarely that the plants flower under cultivation, so that many of the names, which are given by nurserymen, can only be problematical. For garden purposes this would not be of much consequence, the difficulty arising only when growers do not agree as to what names the plants shall bear.

"Now that so many kinds of Bamboos are in cultivation under favored conditions on the Riviera, it would be worth while to watch them, and as they flower, get them properly determined.

"It is generally supposed that nearly every member of the Bamboo order perishes immediately after flowering. There are many recorded instances of this having occurred. But with regard to a considerable number of the species the exact flowering age has not been ascertained. Some are said to grow forty years before flowering. Another remarkable fact is that all the plants of one generation flower at the same time, no matter how different may be the conditions in which they happen to be placed. I was told that all the plants of *Thamnocalamus Falconeri* (*Bambusa gracilis*) of the Riviera flowered and died last year. Numerous seedlings have since sprung up about the old stools, but the latter certainly all perished. This proved to be the case with a plant of *Arundinaria falcata*, which flowered at Kew in 1886.

"The following are the kinds noted. The names in brackets are what I consider to be the correct names, according to Munro, etc.

"*B. aurea.*—A Japanese species, now well known in gardens. It was in cultivation at Kew in 1866, and is here still. It is one of the most elegant of the hardy Bamboos. In the gardens of the Acclimatization Society, at Hyères, there is a magnificent specimen with stems twenty-five feet high, and not more than one and a half inches in diameter. The nodes are prominent, and less than four inches apart on the lower part of the stem. When ripe the stems are of a rich greenish yellow color. The leaves are small, with a distinct petiole.

"*B. gigantea* (*Dendrocalamus giganteus*).—The largest of all the Bamboos. The specimen in the Palm House, at Kew, produces stems forty feet long and twelve inches in circumference, but wild plants have stems as much as twenty-six inches round. In the garden at Villa Valetta, Cannes, there is a very fine mass, with stems thirty feet high and four inches in diameter. It is a native of India.

"*B. gracilis* (*Thamnocalamus Falconeri*).—A slender and somewhat fragile stemmed plant from the Himalayas. It is not uncommon in gardens, as it makes an elegant pot plant. It was plentiful on the Riviera till last year, when all the plants flowered. There is a plant at Hyères called *B. gracilis rustica*, in which the leaves are narrow, with incurved margins.

"*B. Mazelii*, Hort.—Fine masses at Hyères and at Cannes. The stems are twenty-five feet high, bright yellow when mature, the nodes prominent and close together at the base, the branches loose, and the leaves short and twisted on the petiole. It looked suspiciously like *B. aurea.*

"*B. Metake* (*Arundinaria Japonica*).—Much used on the Riviera, where it is as ornamental as it usually is in England. It is always strongest when grown near water, although it grows well in an ordinary border. At Kew there is a specimen twelve feet high. According to Munro it is known as *B. mitis* in the gardens of Paris.

"*B. mitis.*—A magnificent specimen on the lawn at Villa Valetta, the stems thirty feet high and three inches in diameter at the base, becoming shining yellow with age. The nodes are prominent and about nine inches apart, the leaves short and not dense. There is a small plant of it at Kew, obtained last year from Lavallée's collection. It is said to be from Cochin China.

"*B.* (*Phyllostachys*) *nigra.*—A clump of this, twenty yards through and rising to a height of thirty feet, in the garden of Baron Vigier at Nice, was one of the most striking objects seen on the Riviera, thousands of naked, shining, blackish purple stems rising from the lawn and losing themselves in the mass of green foliage above. This species is quite hardy in England, but it does not grow to its full height except when in a very sheltered situation or under glass, as at Chatsworth, where in the large conservatory it is exceedingly handsome.

"*B. quadrangularis*, a very interesting species from China, with stems fifteen feet high by one inch in diameter, and distinctly quadrangular; the nodes are armed with decurved teeth-like spines. These dimensions are of a clump six feet through on one of the lawns at Villa Valetta. There are plants at Kew, both outside and in the temperate house. It is a handsome and distinct Bamboo. For an account of it see an article in *Nature*, vol. xxxii. (1885), p. 391.

"*B. Quilloi.*—I cannot find any information with regard to this plant. Carrière described a Bamboo in the *Revue Horticole*, under the name of *B. Duguilioi*, but Munro appears to have referred this to *Phyllostachys puberula*, included by him under *P. nigra.* The plant known under the above name is represented at Hyères by a large clump with stems twenty-five feet high, one and a half inches in diameter, bright yellow, with a faint tendency to become quadrangular. We have a plant of it at Kew. It is a most elegant Bamboo.

"*B. scriptoria*, Hort. (*B. nana*).—I believe that *B. scriptoria* of the Riviera gardens is merely a form of the well known Chinese *B. nana.* It has the same dense habit, thin green canes, and small leaves with the under side glaucous, which characterize *B. nana.* In some of the specimens seen the stems were nine feet high. A variegated form called *B. scriptionis* is the same as is grown at Kew as *B. nana variegata.*

"*B. Simoni*, a beautiful Bamboo, and perfectly hardy in England, as is shown by the fine example in the Cambridge Botanic Garden, and by the plants at Kew. It is also very handsome at Hyères, where the canes are fifteen feet high, quite smooth and cylindrical, less than an inch in diameter and colored deep olive green. This plant is worth the attention of English horticulturists on account of its elegance and hardiness, and its evergreen character.

"*B. sulphurea.*—Apparently a garden name for a very handsome Bamboo, with stems eighteen feet high, one and a half inches in diameter, the nodes nine inches apart, and the internodes deeply furrowed on one side. When mature the stems are rich orange-yellow in color. There is a fine mass of it at Villa Valetta. It is also in the Kew collection.

"*B. verticillata.*—This is probably the 'Male Bamboo' (*Dendrocalamus strictus*), a common Indian species, the stems of which, according to Munro, are universally used as lance-staves. The specimens seen were large clumps, the stems twenty feet high, one inch in diameter, the nodes at the base a foot apart, the upper ones bearing each a crowded cluster of short leafy branches. When old, the stem is bright yellow. It is a well marked, handsome Bamboo.

"*B. violescens.*—A beautiful Chinese Bamboo which was introduced to the Jardin d'Acclimatation in 1870, in the branch of which at Hyères a fine clump was noted. The stems are ten feet high, three-fourths of an inch in diameter, much branched toward the top, the internodes somewhat flattened on one side, and striped with violet on a greenish yellow ground. The leaves are glaucous on the under side. Young plants of it are in the Kew collection.

"*B. viridi-glaucescens*, Hort.—One of the handsomest of cultivated Bamboos. It is quite hardy in England, and in France it is one of the commonest. It grows very rapidly, has handsome foliage, transplants easily, and is a first-rate pot plant. It is frequently used in France for the embellishment of entrance halls, and is very effective. The stems of the Riviera plants were over twenty feet high, very slender, the nodes about a foot apart, dark green when young, bright yellow when mature.

"*B. vulgaris* (*B. Thoursii*).—Some astonishingly large, healthy specimens of this well known species were met with. Apparently it does not require tropical treatment such as it usually gets. At Hyères, Cannes and Nice it is especially fine, in the last named place measuring forty feet through and the canes thirty-five feet high. The plant in the Palm house at Kew must be thirty years old; it has not yet flowered."

Palms are the most prominent feature in many of the towns of the Riviera, and the chief beauty of many gardens is produced by groups or single specimens of Palms of various kinds. At Hyères the common Date Palm is used as a street tree, and at Bordighera this Palm is extensively cultivated for the sake of its leaves, which are used for the decoration of churches and are sent as far away as to Paris. No less than sixteen genera of Palms are represented in these gardens. Mr. Watson describes the Washingtonia, the Desert Palm of California, as "one of the glories of the Riviera," and

reference to this plant is made again in his letter on page 112 of this issue.

Next to the Washingtonia, *Phœnix Canariensis* seems to be the most satisfactory Palm in the gardens of the Riviera, where it grows very rapidly and soon forms a magnificent head. Agaves, Furcræas, Beaucarneas, and other so-called succulent plants flourish in these gardens, where Yuccas are seen in greater variety and beauty probably than anywhere else. There is a specimen of *Yucca filifera* (see GARDEN AND FOREST, i. 78.) in the gardens of the Villa Valetta with a stem three feet in diameter at the base, and several other species or varieties are represented by large individuals.

Notes.

Théodore Frœbel, the founder and head of the well known nursery establishment of Frœbel & Cie., of Zurich, retires from active business, and is succeeded by his son and partner, Otto Frœbel, in whose name the business will now be conducted.

Aralia Sieboldii variegata is attracting attention as a handsome and serviceable plant for house decoration, its tough leaves being well adapted to such use. The variegation appears, however, to be somewhat fickle, and possibly may be much improved by proper selection.

Experiments in Olive culture, made by the University of California, are of great value to all growers in that region. Twelve imported varieties have been grown at the agricultural stations, and the result shows that between the Mission and Picholine, varieties mostly grown in California, the Mission is far superior in amount of meat and yield of oil.

The hybrid perpetual Rose, Ulrich Brunner, has been forced quite early in the season in a number of the large Rose establishments, and has proved the finest bright red Rose for this purpose. It is of large size and particularly lively in color. As an offset to this, however, it is claimed by some growers that this Rose is hardly productive enough to become a very profitable variety for forcing.

Another reminder of the prevailing mildness of the present season was seen at the recent meeting of the Pennsylvania Horticultural Society in the form of flowers of the Cape Pond Weed (*Aponogeton distachyon*) from out-doors. The exhibit in which this was seen was from the garden of a lady living near Philadelphia, and included cut blooms of about a dozen other species of flowering plants, most of which looked strangely out of season in February.

Dr. Harris states that the seeds of imported Watermelons do not change in form, size or color by being grown here, as those of the Cantaloupe do, except under hybridization. The number that is produced by one fruit is occasionally very large, as high as 1,160 perfect seeds, of a weight of five ounces, having been taken from a melon of forty-nine pounds. Such productiveness is rare, as the number rarely exceeds 600; that of the Calabash reaching the same, the Cantaloupe 500 or more, and the Cucumber 450.

At the February meeting of the Pennsylvania Horticultural Society, held in Philadelphia, an attempt was made to test the relative popularity of the hybrid perpetual Roses, Madame Gabriel Luizet and Mrs. John Laing; the choice was made by ballot, and resulted in a majority of twenty-seven votes in favor of Madame Gabriel Luizet in a total vote of about ninety. A similar contest between La France and the Duchess of Albany resulted in a majority for the first-named. It would seem that these two varieties (Madame Gabriel Luizet and La France) are securely fixed in the affections of the Philadelphia horticulturists, and may not easily be displaced by the newer varieties, even though these are Roses of the very first rank.

Orange culture at Jaffa, according to Consul Gilman, has become an industry of great value. Of the 9,000 acres of cultivable land pertaining to the community, 3,000 acres are covered by Orange groves and gardens; and these are all under irrigation. Among the other fruits produced are the lemon, lime, citron, date, peach, apricot, grape, fig, pomegranate, plum and melon, as well as the olive. All the ordinary garden vegetables are also grown here of good quality and in abundance. Of late, the Vine, especially, is receiving increased attention and care; extensive vineyards are being planted; and as here the Vine is free from the diseases and insect pests of other countries, and the soil and climate are peculiarly adapted to it, this should be one of the most flourishing wine-producing countries in the world. The Olive does best in the hill country, and generously responds with abundant crops to the slightest care.

Dr. C. C. Parry died at his home in Davenport, Iowa, on the 20th of last month, from pneumonia, which followed an attack of influenza, contracted in the east. He paid a long visit to botanical friends in the autumn and early winter, and while here was busy investigating various matters connected with the California flora. He was then in perfect health apparently, active and alert in mind and body, and full of plans for new work. He was enthusiastic in discussing new expeditions in the far west, and full of reminiscences of travel and adventure. Though sixty-six years of age, we little thought then that our friend's wanderings were so near an end.

Charles C. Parry was born in Admington, England, on August 28th, 1823. His family emigrated to America nine years later, and settled on a farm in Washington County, New York. Dr. Parry was educated at Union College, and then studied medicine. He was interested, however, in botany even at this period of his life, and although he practiced his profession for a short time in Davenport, where his family removed in 1846, he soon abandoned it for the more congenial pursuit of natural history. He had devoted much attention to collecting the plants of New York before he moved to Iowa, and these studies secured for him the acquaintance of Dr. John Torrey and Dr. Asa Gray. Their acquaintance confirmed his taste for botanical exploration and exerted a powerful influence upon the remainder of his life.

Dr. Parry's real work as an explorer began in 1849, when he was attached to David Dale Owen's survey of Wisconsin, and made a collection of plants in the valleys of the St. Croix and St. Peter Rivers. The next year he joined the botanical staff of the Mexican Boundary Survey, and crossed the California desert from San Diego to the mouth of the Gila River. This journey and the subsequent ones which he made as a member of the survey, and which extended through two or three years and carried him overland from the Pacific Ocean to the Gulf of Mexico, were rich in botanical discoveries of the most interesting character. These are found recorded in the "Report of the Mexican Boundary Survey," published in 1852. Persons who cross these deserts now in Pullman palace cars can form a very slight idea of the sufferings and hardships of these early explorers, who passed months in traveling distances now covered in as many days.

Dr. Parry's next conspicuous service to American botany was performed in 1861, when he began his examination of the flora of the central Rocky Mountains. This work, undertaken mainly at his own expense, occupied him several years. The Colorado mountains were at that time a fresh field, practically, their flora being known only by the scant material brought back many years before by the naturalist of Major Long's expedition, and Dr. Parry was able to reap a rich harvest from the plants which extend to the summits of the alpine peaks, which he was the first botanist to reach. He made, too, at this time, valuable meteorological and topographical observations, afterward elaborated by Dr. Engelmann. Dr. Parry was appointed in 1869 as Botanist of the Agricultural Department at Washington, and occupied this position for two years. He was, however, an explorer by temperament and by habit, and he had little liking for the restraints of an office position. This taste for travel he was able to gratify for the last twenty years, during which he was more or less continuously in the field, either in Nevada and Utah, where he made many discoveries, or in Mexico and California, where much of the last part of his life was passed. He always kept his home, however, at Davenport, in whose Academy of Natural Sciences he was deeply interested. This he made, several years ago, the depository of his herbarium, which was, of course, exceedingly rich in western plants, and which, besides his own collections, contained those of many correspondents.

Dr. Parry discovered hundreds of new plants afterward described by Dr. Gray and by Dr. Engelmann, and his name is so firmly fixed in this way in the history of American botany that, although he published very little, it will be remembered as long as the plants of western America continue to interest the students of botany. Horticulturists will not forget that it was Dr. Parry who discovered *Picea pungens*, the beautiful Blue Spruce of our gardens; *Pinus Engelmanni*, *Pinus Torreyana*, *Pinus Parryana* and *Pinus aristata;* nor that it was through his zeal and enterprise that many plants now familiar to us were first cultivated. With Dr. Parry there passes away the last, with a single exception, of the remarkable group of men who became prominent as botanical explorers soon after the great addition to the territory of the United States which followed the close of the Mexican War, and who, fired by the enthusiasm of Asa Gray, opened to the world under his guidance the botanical treasures of the western and south-western parts of this country.